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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

ON A VARIETY OF FUNCTIONAL DISORDER OF THE HEART, CHARACTERIZED BY NOTABLE INFREQUENCY OF THE PULSE.

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Functional disorder of the heart in the forms with which, from their frequency, every practitioner is familiar is characterized by paroxysms of violent or fluttering action, with irregularity or intermittency; the patient distressingly conscious of the disturbance, with a sense of danger of sudden death; the paroxysms sometimes of momentary duration, but in some instances lasting for hours or even days, recurring either at short or long intervals, and especially apt to occur during the night; the paroxysms taking place often without any obvious exciting cause, the disorder attributable to derangements of digestion, anæmia, sexual excesses, the immoderate use of tobacco, prolonged mental anxiety, and kept up by

apprehensions occasioned by the disorder, and leading the patient to watch the action of the heart by feeling its impulses or the pulse and listening to its sounds. To these causative circumstances is to be added an intrinsic tendency in some persons to functional disorder of this organ.

An infrequent variety of functional disorder is characterized by a persistently rapid pulse, without disturbance of the rhythm of the heart's action. This variety of disorder is a marked feature in the affection known as exophthalmic goiter, called also Graves's and Basedow's disease. In different cases of this affection the frequency of the pulse varies from 100 to 140 per minute, the rhythm, as a rule, perfectly regular, and the frequency persisting for many months and years. The disorder of the heart is undoubtedly functional, existing, as it does in a certain proportion of cases, without any physical signs of cardiac lesion. This persistingly rapid pulse is sometimes observed without the enlarged thyroid body and protrusion of the eyes which belong to Graves's or Basedow's disease.

Before concluding that such a pulse denotes a functional disorder of the heart it must be determined that it is not a normal peculiarity. Some healthy persons have a notably frequent pulse; and without knowledge of this peculiarity, when it is observed in a patient, needless anxiety may be caused by regarding it as a morbid symptom. I will cite a case which, as I suppose, illustrates this remark.

In May, 1873, a young lady was referred to me with a rapid and variable pulse, never falling under 100, and under slight excitement rising to 120 per minute. She was not conscious of the action of the heart. She was somewhat anæmic, and there was some enlargement of a cervical gland; but she had no definite ailments, and was hardly aware of being in ill health. The thermometer showed a normal temperature. She spent the summer on the sea-shore, and took for a time chalybeate tonics. In the autumn she presented an improved

appearance, the evidences of anæmia had disappeared, and she reported herself well; but the pulse was still not below 100 per minute. Two years afterward I saw this patient again. She was then in good health, with the same frequency of pulse.

From the points presented in this brief statement I infer that this was an example of a frequent pulse as a normal peculiarity. If otherwise, the case would illustrate the fact that a functional disorder characterized by frequency of pulse may persist for a long period without any important consequences. This fact is exemplified by some cases in which frequency of the pulse denotes functional disorder, either with or without the co-existence of exophthalmic goiter. I should have stated that in the case just referred to there was no physical evidence of any affection of the heart.

Functional disorder of the heart characterized by notable infrequency of the pulse is a variety much more rare than that just referred to. It is not included among the different forms of cardiac disorder in text-books on the practice of medicine or in treatises devoted to diseases of the heart. Here is an evident hiatus, if this be a distinct variety of functional disorder. Owing to the deficiency just stated in standard medical works and the rare occurrence of cases, this form of disorder, when it is met with, occasions doubt and anxiety in the mind of the practitioner. He is at a loss as to the significance and importance belonging to a notably infrequent pulse; he is liable to entertain needless apprehensions of danger, which are likely to be shared by the patient. These considerations have led me to collect the histories of a few cases which have come within my knowledge, and to submit them as a small contribution to the literature of the subject. The histories will substantiate the fact that there is a variety of functional disorder of the heart characterized by notable infrequency of the pulse; and after giving the histories I shall offer some remarks on the diagnosis, pathology,

and treatment of this variety of disorder. I should have been glad to have searched medical books and periodicals in order to have collected a larger number of cases for analytical study. I must be content with commending this undertaking to some one who can command more leisure; but I will premise my small collection with an abstract of the history of a case recently reported by Pugin Thornton. I met with the report, as I was about to commence this paper, in the Transactions of the Clinical Society of London, Vol. VIII, published in August, 1875.

The patient, a married woman, aged twenty, very anæmic and thin, was admitted into hospital in November, 1872, with acute syphilitic laryngitis. Tracheotomy was performed by Mr. Thornton, her pulse at the time of the operation being 40 per minute. A few hours after the operation she had an epileptic paroxysm. She remained in hospital for four weeks without any recurrence of the paroxysm. After leaving the hospital she had attacks of giddiness with noises in the head, lasting for a few seconds. Her pulse remained the same after as before the operation. She was re-admitted in the latter part of December, and her pulse then was 16 per minute. The pulsations were strong. She had now transient attacks of giddiness, lasting only a few seconds. The pulse gradually increased to 40 per minute, and so remained until her discharge, which appears to have been in February, 1874. There was never found any evidence of organic disease of the heart, although there was a murmur which was considered to be functional. During her second stay in hospital the canula was removed from the trachea, the laryngeal obstruction having completely disappeared. Subsequently she became stout and was in good health, her pulse being 48 per minute. She had taken the iodide of potassium with reference to syphilis.

The previous history of the case was as follows: She began to have epileptic seizures in 1870. During about two

months they were of frequent occurrence, then ceasing, and not recurring until November, 1872, shortly before the operation of tracheotomy. During these two months the epileptic seizures were very frequent and severe, occurring both in the day and night. During the paroxysms cessation of the heart's action was noted once for eighteen and once for sixteen seconds. In the intervals the pulse was noted to be 24 per minute.

The frequency of the pulse in this patient prior to her illness was not known. After her apparent recovery it was 48 per minute. Assuming this to have been the normal frequency, which is not probable, the reduction to 24 and 16 per minute is remarkable. There is perhaps some room for the conjecture that in this case the number of the radial pulsations did not represent the number of ventricular systoles; but as the heart was examined with reference to organic disease, it is to be presumed that any want of correspondence between the radial pulse and the heart-sounds would have been noticed.

CASE I.—The first case in my collection occurred seven or eight years ago; and, as I failed to make a record of it, the history will be meager. The patient, about thirty-five years of age, the wife of a medical friend, had been at times apprehensive of disease of the heart, and I had repeatedly made a physical examination, with a negative result. Excepting some neuropathic ailments, her health had been good. While at dinner a morsel of food, apparently getting behind the epiglottis, excited a violent and persistent fit of coughing, with a sense of suffocation; vomiting took place, she became livid and greatly prostrated. She kept the bed for several days, complaining of a sense of faintness whenever her head was raised, and suffering from irritability of the stomach. The pulse was about 40 per minute. In health it was of the average frequency. She slowly improved, the pulse gradu-

ally becoming normal, and in two or three weeks her usual health was re-established. During this illness and subsequently there were no signs of cardiac lesion. She died several years afterward of typhoid fever with intestinal hemorrhage, and an examination after death showed the heart to be healthy.

CASE II.—The second case I saw in consultation with Prof. Wm. H. Thomson, who has furnished the main points in the history, as follows: "W. H. B., aged thirty-eight years, was first seen by me April 13, 1873, when convalescing from acute pneumonia of the right lung. He had proceeded so far as to have only slight bronchial respiration and bronchophony, with whisper at the angle of the scapula, but with quite high-pitched inspiration at the corresponding point in the left lung. What I was called for was a sudden sense of great prostration coming on about noon on the 13th, the patient feeling as if death were imminent from stoppage of the heart. I found him in a state of great alarm, with cold perspiration, a pulse not above 40 per minute, and markedly intermittent. There was no cardiac murmur or any increase of the area of dullness on percussion over the heart. The patient was naturally of a very excitable temperament. For six weeks he continued to have attacks of this kind, sometimes thrice daily, but after a while at more prolonged intervals, until they ceased entirely. While he had them as often as twice daily he was generally delirious and very talkative. The temperature was never above normal. During the attacks he took brandy and ammonia very freely with very little effect on the pulse, although usually calmative on the mind. He had no other cerebral symptoms and no disorder of the senses. The examination of the urine was negative. The lowest pulse noted was 35 per minute. He made a tedious but finally perfect recovery, and has not suffered from any cardiac symptoms since."

CASE III.—The third case did not come under my observation, but an account of it was communicated to me in a

letter from Dr. E. D. Forée, of Louisville, Ky. Subsequently Dr. Forée reported the case in the American Practitioner for June, 1874. His report is as follows:

"Mr. B., aged fifty-three years, previously healthy—having never had other illness than two or three attacks at distant intervals of intermittent fever, the last more than a year prior to the present attack—after a short ride by rail through cold March winds, finished by a few miles on the top of a stage, felt badly, as though he had contracted a cold. He took a foot-bath and a hot punch, and retired early. The next morning he arose not feeling well, but passed the day pleasantly; among other things he enjoyed for a short time a fox-chase on horseback. The succeeding night he returned to the city still feeling badly, and on the following morning I saw him. He was in bed, countenance and complexion entirely natural; was cheerful; said he had sent for me he scarcely knew why; that he had moderate appetite, had slept well the preceding night, had no cough, no sore throat; felt weak, and had a sense of constriction across the trunk about the top of the epigastric and hypochondriac regions.

"He was so cheerful and complained so little that I was very near dismissing the case without even noting the pulse, but on doing so it was so long before I felt a beat that I supposed the artery was compressed at some point. Ascertaining, however, that it was not, I found it beating but 26 to the minute. The rhythm, fullness, and force were perfectly good; respiration 24 per minute. The heart was normal in size, its sounds distinct, and impulse natural. The bowels were in good condition and the urine sufficiently abundant, its specific gravity 1020, and showing nothing under microscopic and chemical examination. I directed the recumbent position to be maintained, and brandy, musk, and camphor to be given freely. At the afternoon and evening visits the condition remained unchanged. At the evening visit I withdrew the stimulants, and gave five grains of quinine with one

quarter of a grain of calomel every three hours until four doses were taken.

"The morning of the second day I found him in every regard about the same, excepting the respiration, which was 14 per minute. Drs. Lewis Rogers and Bolling saw him with me in the course of the day, and upon careful examination found the heart as above reported; but prior to their visit the patient had had a moderately large evacuation from the bowels, induced by the calomel, and the pulse-beats had increased to 32 per minute. We continued two and a half grains of quinine every four hours, and ordered a pill of two grains of calomel and compound extract of colocynth, each to be taken at bed-time. The third day the pulse was 36; the pill had acted well; otherwise the patient's condition was the same.

"On the fourth day the pulse was 42. We gave no medicine. The fifth day the pulse was 60. The sixth day it rose to 80, its normal rate. The patient then resumed work. He had no inconvenience afterward, and is now quite well, two months after the date of the illness. The temperature the first morning was 97°; that evening it rose to 98.4°, and so remained throughout."

Case IV.—This case I saw in consultation with Dr. J. H. Vandy, of Jersey City. The following extracts from a letter from Dr. Vandy embrace the important facts:

"Mr. S., a Prussian, aged about forty-six years, of fair complexion and an excitable, nervous temperament, but robust, and never ill save with attacks of 'sick-headache,' had what I considered malarial fever in the middle of May, 1875. For the first week or ten days cephalalgia was a prominent symptom. It was continuous, but more severe at night, and at times it was accompanied by evidences of delirium. He was most of the time savagely cross. The pain in the head prevented sleep, and resisted the bromide of potassium, quinia, belladonna, sinapisms, etc., but was at length relieved by

morphine. Under the use of the latter remedy the headache ceased. I now come to the remarkable feature of this case, which was slowness of the pulse. I have counted his pulse in health, and found it to be from 70 to 75 per minute. During the first few days I did not observe any peculiarity, but I was soon led to notice that the pulse became less frequent, and I then counted it with care twice daily. In about ten days after the date of his illness the pulse was 40 per minute, and I found it once 38 per minute, increasing always at evening to 46 or 48 per minute. The severe pain in the head, the slight delirium, and this slowness of the pulse gave me great apprehension of some grave affection of the brain, and under these circumstances you were called in consultation. Your favorable prognosis was fully verified, for in three weeks he was out of doors, although complaining of pain in his head for many weeks. The quinine was continued for a considerable time. The slowness of the pulse continued for some time, and when he felt quite well it was not more than 50 per minute. It gradually became more frequent, and a few days since I found it to be 74 per minute."

CASE V.—The fifth case I saw with Prof. Wm. Detmold, who had visited the patient during a previous illness of the same character. He was seen at that time also by Profs. Willard Parker and A. Jacobi. In the last attack he was attended by Dr. S. S. Jones, to whom I am indebted for the following account:

"Heinrich G., aged forty-three, up to January, 1874, was in fair health, but suffering from habitual constipation. At the above date he complained of weakness and palpitation on going up stairs. The pulse was 40 per minute. There was no abnormal cardiac sound; the lungs were healthy, the urine was natural, and the liver and spleen were not enlarged. He remained much the same until the following April, when he had attacks in which, as he said, he 'felt a cloud pass over him.' These occurred generally when he was in an erect

posture, and especially when walking. He thought he should fall if he did not lean on some solid support, but he never lost consciousness. The attacks were frequent during April. At this time the pulse was from 30 to 34 per minute. He took a pill of the sulphate of strychnia, atropia, and iron at first, and afterward quinine and the tincture of cinchona-bark. From May, 1874, to May, 1875, his health was good, the pulse varying from 30 to 40 per minute. In May, 1875, after a hearty meal, he had an epileptiform convulsive seizure, remaining unconscious for about ten minutes; copious vomiting followed. A similar seizure recurred twice during the month. The pulse was somewhat accelerated during the seizures, but in the intervals it was from 24 to 36 per minute. After May up to August he was free from these seizures, but he had slight attacks, such as had previously occurred. The pulse remained 26, and was irregular. His digestion was poor. In August he had three epileptiform seizures, two occurring in one day, and in the intervals the light attacks. The last of the severe seizures in this month lasted fifteen minutes. He became markedly cyanotic, his movements and appearance being as if asphyxiated. The pulse during the seizure was 40 per minute. After this he had no more severe seizures, but frequent light attacks. His appetite was fair, but his sleep was disturbed apparently by the occurrence of the light attacks. The pulse was 26 per minute. In September Dr. Knapp examined the retinæ, and pronounced them perfectly normal. In this month he began to take phosphorus, and from this time he began to improve, the light attacks becoming less frequent and his pulse rising from 26 to 36 per minute. At the present time (November, 1875) he is about and attending to his business. During the whole time embraced in this history the urine remained normal, and during the seizures the convulsive movements were never limited to one side. Stimulants given systematically did no good, and the same is to be said of the bromide of potassium

and the employment of faradaic electricity. Up to the 20th of September the appearance of the patient was extremely anæmic."

This account by Dr. Jones does not give information of the frequency of the pulse prior to the illness of the patient, leaving room for the supposition that it may have been normally infrequent. The patient stated to me that ten years ago he was told by Prof. Jacobi of his pulse being 40 per minute, and that he had not been aware of any peculiarity before this. Some nine years ago he was examined for a policy of life insurance by the examiner of the New York Mutual Life Insurance Company, and was accepted without any hesitation. A year afterward, having inadvertently let his policy expire, he was examined for a renewal, and no objection was then made to him. It seems probable that if at the time of these examinations the pulse had been notably infrequent, the fact would have occasioned at least remark. But, assuming the normal pulse to have been 40 per minute, the reduction to 26 per minute is sufficiently remarkable. I examined the patient a few days prior to the date on which I am writing (November, 1875), and found the pulse 36 per minute. The rhythm of the heart's action was regular. The pulse now and on a previous examination was found to correspond with the heart-sounds. There was a feeble systolic murmur at the apex, but the heart was not enlarged. The first of the heart-sounds was strong and somewhat prolonged, but the retardation was chiefly in the interval between the sounds or the long pause. The patient expressed to me great apprehension on account of the infrequency of the pulse. He was, however, not conscious of any abnormal action of the heart, and said that if the idea were out of his mind he would consider himself quite well.

Reviewing the foregoing five cases, together with the case reported by Mr. Thornton, four are males and two females.

The ages of the patients respectively were twenty, thirty-five, thirty-two, fifty-three, forty-six, and forty-three years. The lowest degrees of infrequency reached in the several cases were 16, 40, 35, 26, 38, and 26 per minute. Of my five cases, the pulse in health was known to be not far from the normal average in three, it was presumably so in one case, and there is room for doubt in respect to this point in one case. In Mr. Thornton's case cessation of the heart's action for eighteen and sixteen seconds was noted. In Case II in my collection there was marked intermittency of the pulse, and in Case V at one time there was irregularity. In the remaining cases the rhythm of the heart's action was regular.

In each of the cases the patient may be said to have recovered from the cardiac disorder. The only qualification to this statement is that in two of the cases the pulse remained at 40 per minute after evidence in other respects of recovery. With regard to these two cases it is a question whether 40 was not the normal frequency of the pulse. It seems fair to infer otherwise, from the fact that the patients appeared not to have been aware of any peculiarity of the pulse in health, and it is probable that if such a peculiarity had existed they would have known of its existence. If this be a correct inference, these cases illustrate the occurrence of a persistently infrequent pulse as a sequel of the disorder under consideration. That a persistently infrequent pulse may be not a congenital but an acquired peculiarity, and continue without any impairment of health, is undoubtedly true. In an article quoted from the London Medical Times and Gazette, March 20, 1875, I find the following reference to an account of his own case by Dr. Archibald Hewan: "Twenty years before he had studied greatly; his pulse was then 72 in the minute. Afterward it was found to be 55. From that point it had gradually decreased. Eight years ago it was 24. He had been abroad; never had a fit or fainted, and could bear cold well. He had lately climbed a mountain many thousand feet

high, and his pulse at the top was 40. His urine had not altered in any way, his digestion was very good, and he was in good health. Eight years ago he had rheumatic fever, when his pulse did not rise above 32. Eight weeks ago he had gout and rheumatic pains, when his pulse quickly rose to 64 and 68, and then fell slowly to 32 and 28, at which it stood at present." *

Notable infrequency of the pulse as an acquired normal peculiarity must be extremely rare. Intermittency of the heart's action, however, as is well known, as an acquired peculiarity in middle and advanced life, not dependent on any cardiac lesion, is a not uncommon occurrence. Infrequency of the pulse, denoting a variety of functional disorder of the heart, seems to be associated generally with morbid cerebral disturbance. Of the six cases which I have cited this was true in all but one case (Case III) in my collection. In two cases there were severe epileptiform seizures, together with frequent epileptoid attacks; in two other cases there was mental excitability, amounting to delirium; and in one case there was great mental and physical prostration and gastric irritability, due apparently to cerebral disturbance. In the excepted case there seems to have been no evidence of disorder of the brain.

The causes, so far as they were apparent in the cases introduced in this paper, were as follows: in Mr. Thornton's case there was syphilitic disease; in Case I of my collection the disorder followed a very violent fit of coughing, with spasm of the glottis; in Case II the disorder occurred during convalescence from labor pneumonia; in Case III, exposure to cold and violent exercise preceded immediately the illness; in Case IV the symptoms preceding the disorder denoted a malarial fever; and in Case V over-ingestion and indigestion appeared to have had a causative influence.

* The Monthly Abstract of Medical Science, Philadelphia, September, 1875.

The diagnosis of this variety of functional disorder involves, *first*, determining that the infrequency of the pulse is not a normal peculiarity, either congenital or acquired. As already stated, it may be an acquired peculiarity. Napoleon the Great was a well-known instance in which it was probably congenital. His normal pulse was 40 per minute; and it is stated that he felt uncomfortable, except in the excitement of battle, whenever it rose to 60 in the minute. We may certainly say that, as a rule, if an intelligent adult person has habitually a notably infrequent pulse, he becomes acquainted with the fact; and therefore, if he be ignorant of such a peculiarity, we may infer that it is not normal.

In the second place, organic affections of the heart are to be excluded. Mitral lesions, obstructive or regurgitant, especially the former, occasion an infrequency of the radial pulse; the quantity of blood expelled from the left ventricle with some of its contractions being too small for an appreciable pulsation of the wrist to be produced. The radial pulse under these circumstances does not represent all the ventricular systoles. This is easily determined by comparing the pulse with the heart-sounds, the stethoscope being applied over the apex of the heart. Moreover, valvular lesions and enlargement of the heart are easily ascertained by means of physical signs. To exclude fatty degeneration of the heart is not so easy, and infrequency of the pulse is sometimes a marked symptom of that affection. It is quite certain that fatty degeneration did not exist in any of the cases which have been cited in this paper; the histories show absence of its signs and symptoms, irrespective of the pulse. The age of the patient, the feebleness of the first sound of the heart over the apex, the habitual want of breath on exercise, the tendency to syncope, when associated with an infrequent pulse, will generally furnish diagnostic points sufficient to show the pathological connection of the latter.

An error agnosis which without proper knowledge

and attention is likely to occur is the confounding of this with another functional disorder of the heart; namely a disorder characterized by a regular alternation of a ventricular systole, giving rise to a radial pulse, with one so feeble as to be not appreciable at the wrist. This is a curious form of functional disorder, which may also be mistaken for a reduplication of both heart-sounds. I committed the latter error in a case which, in the first edition of my work on the heart, I introduced as illustrative of reduplication. The case came under my observation in the Louisville Marine Hospital in 1853. The patient was a sailor, aged twenty-seven, who was admitted for a cough which he attributed to his having taken cold six weeks before. On comparing the pulsations of the radial artery with the heart-sounds, there were four sounds for each pulse. The number of double sounds was precisely twice as many as the number of radial pulsations per minute. This exact ratio was invariably preserved whenever the comparison was made for at least seventeen days. After having been in hospital two months he was discharged quite well, and when discharged the pulse and the two sounds of the heart were in normal ratio, being 84 per minute, the radial pulse having previously been from 30 to 40 per minute. The carotid pulse in this case represented each ventricular systole; a fact which should have prevented the error of considering it as a case of reduplication. I have since met with several examples of this form of disorder, in which, as we may say, there is a regular irregularity in the heart's action. A comparison, by means of a stethoscopic examination, of the heart-sounds with the radial and the carotid pulse will enable us always to exclude not only this disorder, but also a veritable reduplication of the heart-sounds. Such a comparison will show that infrequency of the pulse represents a corresponding infrequency of the heart's action.

Infrequency of the pulse is a well-known symptom in cases of injury of the skull and in certain intra-cranial affections.

Cerebral hemorrhage, embolism, and thrombosis are easily excluded by the absence of paralysis, but the exclusion of subacute or chronic meningitis is not so easy. A capital point in relation to the latter affection is that cases of the functional disorder under consideration associated with cerebral disturbance present a want of correspondence between the infrequency of the pulse and the particular symptoms referable to the brain which are in relation thereto; in other words, infrequency of the pulse incident to meningitis is accompanied by cerebral symptoms denoting compression of the brain, symptoms which are wanting in cases of infrequency of the pulse, characterizing a functional disorder of the heart. The absence of fever, increased sensibility to light and sounds, together with other symptoms embraced in the clinical history of meningitis, will render the exclusion of that affection positive. The pulse is abnormally infrequent in cases of jaundice and in some cases of uræmia; but these affections are easily excluded. I may refer in this connection to the infrequency of the pulse caused by certain drugs; namely, aconite, digitalis, and especially the veratrum viride. These drugs given to a person in health produce in fact a transient functional disorder of the heart equivalent to that under consideration. The question what is the rationale of their operation leads at once to the pathology of the disorder.

The pathology of the variety of functional disorder of the heart characterized by notable infrequency of the pulse is to be considered in connection with our present knowledge of the physiology of the heart's action. Physiological experiments appear to have demonstrated that the frequency and force of the action of the heart are regulated by a constant nervous influence transmitted by the motor fibers of the pneumogastric nerves distributed to this organ. A galvanic current through the pneumogastrics diminishes the frequency and, if the current be sufficiently powerful, arrests the heart's action, the organ

remaining not contracted, but flaccid. These nerves, in so far as concerns their influence on the heart's movements, are restraining or inhibitory. On the other hand, increased frequency, feebleness, and irregularity of the action of the heart are effects of a division of these nerves, the influence of the sympathetic ganglia being then left without restraint or regulation. With the light afforded by these facts it is apparent that the ordinary forms of functional disorder of the heart involve diminished influence or paralysis of the pneumogastrics; whereas the rare variety of disorder, characterized by infrequency of the pulse, involves an abnormal increase of the restraining or inhibitory influence exerted through these nerves. This latter variety is imitated by galvanizing the pneumogastrics, while in ordinary palpitation, quoting the language of Dr. Farquarson, "the unrestrained vaso-motor ganglia, if we may use such an unscientific expression, take the bit between their teeth and bolt."

This rationale of the disorder under consideration leads us to the central connections of the pneumogastrics as its seat; and this is consistent with the fact that in each of the cases introduced in this paper, with a single exception, other symptoms denoted marked cerebral disturbance. Further than this in the pathology our present knowledge does not enable us to go. What the particular pathological condition may be which augments the restraining or inhibitory influence exerted through certain constituents of the pneumogastric nerves we might be better able to conjecture if we understood on what particular physiological condition the normal exercise of their function depends. Here, as elsewhere, pathology can not be expected to outrun physiology; it would be unreasonable to expect us to comprehend perversions of functions more fully than the functions themselves. In confessing inability to explain why a morbid influence upon the heart is exerted through the pneumogastrics, we repeat a confession which we have to make with respect to other neuropathic affections; for instance,

the morbid influence exerted upon the voluntary muscles in a paroxysm of epilepsy.

The diagnosis of this variety of functional disorder carries with it a favorable prognosis. There is no evidence that the inhibitory function of the pneumogastrics may be affected to such a degree as to place life in danger from an arrest of the heart's action. In this respect the disorder is in harmony with the other forms, which, however severe, distressing, or persistent, do not prove fatal. But to obtain prompt relief and abridge the duration of the disorder are important objects of treatment. In the cases which have been given it may be doubted if the remedies employed were in any special way efficacious. Alcoholics, used pretty freely in the cases reported by Professor Morrison and Dr. Jones, seemed to have but little effect upon the heart. In the case treated by the latter the bromides were without avail; but a combination of strychnia, atropia, and iron, and subsequently phosphorus, in that case were followed by relief and progressive improvement. Aconite or digitalis are certainly contra-indicated, except on the ground of *similia similibus;* and the same is true of galvanism, which in this form of functional disorder should afford a good test of the Hahnemannic doctrine. Of course therapeutical indications must relate to associated symptoms and circumstances, which may be expected to vary in individual cases; but, as regards a direct remedial effect upon the heart, the problem is to prescribe a remedy which will lessen the abnormal inhibitory influence transmitted through the motor fibers of the pneumogastrics distributed to the heart. Theoretically considered, opium may be suggested as a remedy likely to prove useful. An effect of opium, in small or moderate doses, is to increase the frequency of the heart's action, probably affecting the pneumogastrics by means of its sedative influence on their central relations. It should be given for this end in the "continued dose," using a term em-

ployed by Prof. Edward H. Marke; that is, the doses repeated at sufficiently short intervals to maintain the primary effect of the drug upon the heart.

In conclusion I desire to tender my thanks to Professor Detmold for the opportunity of seeing one of the cases embraced in my collection, and to Dr. Jones for his report of this case; also to Professor Morrison and to Dr. Vandy for a similar opportunity afforded by each, together with their kindness in furnishing histories of the two cases respectively under their care, and to Dr. Forée for placing at my disposal the report of the case occurring in his practice.

NOTE.—Cases of functional disorder of the heart characterized by notable infrequency of the pulse may not be so extremely rare as to belong properly among the curiosities of clinical experience. It is not improbable that many of the medical readers of this paper will be able to recall a case or cases. It so happens that shortly after finishing the paper a patient consulted me with reference to disease of the heart, who stated that a few months previously, after much fatigue and loss of sleep in taking care of a sick friend, he had a sense of prostration which obliged him to keep the bed for several days. During this time the pulse was 40 per minute—his habitual pulse was 80—and after a few days it resumed and has since retained this frequency. The physical signs showed the heart to be sound, and at the time of my examination there was no disorder of its action.

NEW YORK.

MUSCÆ VOLITANTES.

BY C. S. FENNER, M. D.

Mrs. ——, aged forty-nine years, called at my office on the 25th of October to consult me in regard to her eyes, having, as she said, for some years past, in certain kinds of light, seen "black specks" floating or falling before her eyes. She stated that six years previously she had consulted

a physician, who told her that she was "threatened with a disease of the optic nerve, called amaurosis," which would probably, unless actively treated, terminate in total blindness. She was greatly alarmed, and at once placed herself under his professional care, and submitted to a course of treatment which lasted for many months, but without any diminution in the size or number of the "floating black specks." Her fears increasing, she sought other advice; and as one physician after another failed to relieve her, although each promised a cure, she finally placed herself under the charge of a homeopathist, with whom she remained for a year. She had such painful forebodings of future blindness that she had spent much time in weeping, so that life had become a burden to her. Her eyes presented no external appearance of disease, and the ophthalmoscope revealed a perfectly healthy condition of the fundus oculi. She had suffered no pain and but very slight inconvenience from muscæ when some of them appeared in the field of vision. She easily read No. 20 Snellen's test-letters at twenty feet; hence her vision = 1. She read No. 1 Jaeger's at ten inches with glasses $+2\frac{1}{4}$.

With much difficulty I succeeded in convincing her that she had no disease of the optic nerve whatever, and that the "floating black specks" were minute opaque bodies in the vitreous humor, that cast shadows upon the retina, which when projected outward appeared as floating dark spots in the visual field. I requested her to dismiss all her forebodings of future blindness, and assured her that she needed no treatment, as the opaque bodies in the vitreous humor would probably remain unchanged, and would but slightly inconvenience her.

The above-described case is typical of a class frequently coming under the notice of the ophthalmic surgeon, in which patients having "muscæ volitantes" have been assured by their attending physicians that they are threatened with amaurosis, and have often for a long time been subjected to harsh

and unnecessary treatment, and their fears of future blindness excited, thus rendering their lives miserable and themselves fit subjects for the practice of empiricism.

In former times, when the interior of the living eye was an unexplored and with the then existing knowledge an unexplorable dark chamber, there might have been some excuse for such an improper diagnosis and unfavorable prognosis; but with the present lights before us the giving of such opinions is inexcusable.

Muscæ volitantes are found in all eyes, in youth as well as in after-life; but ordinarily, owing to a wise provision of nature (diffraction), they cast no shadows on the retina, because, owing to their small size and the large size of the pupil, the shadows they would otherwise produce are obliterated by the bending of the rays of light around the opaque bodies before reaching the retina. In order that their presence in the eyes may become manifest it is ordinarily necessary that the light should come from a point or be admitted through a minute opening in a screen held before the eye. Any one can easily prove the existence of great numbers of opaque bodies in their own eyes by making in a black card or piece of tin foil a small perforation with a fine needle, and looking through the hole with one eye—the other being closed—at the clear sky or at a milk-glass shade over a gas-light, or even at a sheet of white paper held before a brightly-burning lamp.

These bodies increase in size and numbers with advancing age, so as to be often visible in the ordinary exercise of vision. They frequently appear after vascular irritation, often induced by wearing glasses unsuited to the eyes, and cause painful forebodings of future blindness. It is only in high grades of near-sightedness *(posterior staphyloma)* that their presence should be the cause of alarm. It is not my purpose to treat of entoptic phenomena in this paper, but simply to caution general practitioners against what seems to be a too-common

practice with many, to attribute all (to them) obscure affections of the eye to a disease of the optic nerve.

In reference to muscæ volitantes perhaps it may be well to quote Donders, who says "that few symptoms prove so alarming to persons of a nervous habit as muscæ volitantes, and they immediately suppose that they are about to lose their sight by cataract or amaurosis. Often, alas! this anxiety is even still kept up by ignorant practitioners."

LOUISVILLE.

OBSTETRIC AUSCULTATION.

BY THEOPHILUS PARVIN, M. D.

Prof. Frank C. Wilson's able and useful articles relating to this subject have attracted no little professional attention. He has well illustrated the value of clinical observation, and it is to be hoped that he will not only continue his investigations, but also publish their results for the benefit of others.

Partly in reply to some questions of a correspondent, and partly with a desire to enforce the importance so strongly urged by Dr. Wilson, possibly to facilitate for some the practice of obstetric auscultation, this contribution is made.

Mayor, of Geneva, in 1818 announced that the pulsations of the fetal heart could be heard, the ear applied to the abdomen of a woman near the termination of pregnancy, and that if this *bruit* could not be heard the child was dead. Three years later Lejumeau de Kergaradec, not recognizing any priority on the part of Mayor, published a memoir devoted to obstetric auscultation, embracing many observations.

The discovery of truths in science frequently seems accidental. Thus it was with these observers—each heard what he was not listening for. The one hoped to hear a supposed

sound caused by the movements of the fetus, the other some sound from the amniotic liquor disturbed by such motions, and each heard the fetal heart.

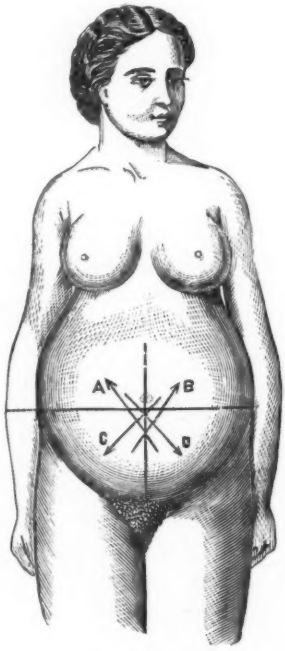
Kergaradec compared the heart-sounds of the fetus to the *tic-tac* of a watch,* a comparison the fitness of which will be obvious to any one who has ever listened to these sounds. So too to this observer belongs the credit of having first heard and described that which he termed the *placental souffle*. Of this sound, both as to its cause, its significance, and its proper designation, we shall hereafter speak.

The position of the woman when auscultation is practiced should be on the back, though some would have her standing, sitting, or even on her hands and knees; the object sought by the last attitude being the removal of pressure from large abdominal vessels. Most obstetrical authorities prefer *mediate* auscultation. "Auscultation is best made by using the stethoscope." (Schroeder.) Stoltz states that for a long time he rarely used the stethoscope, but now, as the result of extensive experience, he generally depends on it, only exceptionally resorting to immediate auscultation; and Depaul, than whom there is no higher authority, gives *(Leçons de Clinique Obstétricale)* among the objections to immediate auscultation the constrained position of the observer, the hearing consequently being less acute; the subject may be uncleanly, or have contagious disease; the impossibility of perceiving the heart-sounds in the earlier months, when the uterus has scarcely passed the superior strait; and the necessity—if a woman is very fat, or if the womb is separated from the abdominal wall by circumvolutions of the intestines, or by a layer of somewhat thick liquid—of pressing the head so firmly upon the abdomen in order to bring the ear nearest the uterus; so that the examination is exceedingly disagreeable for the patient, and *bruits* of all sorts—from the observer's hair,

* Spencer Wells (*Diseases of the Ovaries*) compares the sounds of the fetal heart to "the ticking of a lever-watch under a pillow."

whiskers, and clothing—are caused. But with the stethoscope the fundus of the uterus when it is just above the superior strait can be examined; the *bruits* are more distinct, and it is easier to mark out the place of their maximum intensity; they can be better isolated; the abdominal wall can be more readily depressed; finally, using the stethoscope, the examination will not only be less difficult for the physician, but it will also be a great deal less unpleasant for the patient.

The point at which we first listen for the fetal heart is about the middle of a line drawn from the iliac anterior superior spinous process to the umbilicus. Hearing the sound at this point most distinctly, we recognize the first position, and vertex presentation in all probability; in all probability, because, although in face-presentation the heart-sounds are heard at about the same point, yet, such presentation being rare, we arrive at the conclusion mentioned.



In order to facilitate the examination, and to understand the significance of the maximum intensity of the sounds at different points, we have had copied, with some trifling alterations, the accompanying cut from Depaul.

It will be observed that in the figure a vertical line passes from the symphysis pubis above the umbilicus, and another line crosses this at right angles just below the umbilicus. Thus the superficies of the abdomen corresponding with the enlarged uterus is divided into four parts, marked respectively A, B, C, D. As previously

indicated, the sounds of the fetal heart are oftenest heard in the space marked D, and they are transmitted in the direction of the oblique line—these lines should have no arrow-heads (the mistake was the engraver's)—that is, upward and somewhat to the subject's right.

But failing in hearing the sounds in D, or not hearing them most clearly there, we next seek them in C. Heard there best, the occiput is in the right side of the pelvis, and we still have in all probability a vertex presentation. Again, heard best in B, we have a pelvic presentation, the child's sacrum being probably toward the left ileo-pectineal eminence; but if the sounds are most distinctly in A, still a pelvic presentation, and the sacrum probably toward the right sacro-iliac symphysis. Finally, if the sounds are heard best low down near the median line, and are transmitted *transversely*, the probability is very decided in favor of shoulder-presentation.

Dr. Wilson has dwelt so fully upon the importance and has given some such striking examples of sad errors arising from neglect of auscultation in the diagnosis of pregnancy that it is not necessary to insist upon this point. Nevertheless we confess that in two cases where we failed to our great mortification, though not to either patient's detriment, in recognizing pregnancy the failure was due to a neglect of auscultation. So too there is a triple blunder recorded by Capuron which should not be forgotten, and may help to keep us all on the watch. A patient was being treated by her physicians for dropsy. Corvisart decided she had extra-uterine pregnancy and encysted dropsy; Baudelocque that she had enormous scirrhus of the uterus. Time proved them all wrong; it was a case simply of normal pregnancy.

As to the *frequency* of fetal pulsations observers differ. Dr. Wilson, it will be remembered, found these beats from 110 to 170 a minute; Leishman gives from 130 to 160; Stoltz 120 to 140; Schroeder 120 to 160 or more; Depaul, in two hundred and twenty women examined during the last three

months of pregnancy, found 120 the minimum, 160 the maximum, thus giving a mean of 140; and Naegelé, as the result of six hundred observations, found 90 and 180 the limits, the mean of which would be 135.

Most observers, Stoltz among them, take the position that the fetal heart is not heard before four months and a half. Depaul, however, states that he has heard it in some instances at three months and a half, and in one at the expiration of the third month. In listening for it in the earlier months that it is audible the stethoscope must be applied over the fundus of the uterus. It is only in the later months, when the fetus has increased so much proportionally to the cavity which it occupies and the liquor amnii surrounding it, that it becomes fixed in position, and presents a permanent place of greatest intensity of the heart-sounds.

In a very small number of cases the heart-sounds may not be heard. Thus of nine hundred and six women examined in the last four months of pregnancy, in eight only these sounds failed. While therefore hearing these pulsations is conclusive evidence of pregnancy, not hearing them does not prove there is no pregnancy. In two words, as Pajot says, hearing them, you can affirm; not hearing them, authorizes you neither to affirm nor to deny.

In this journal, October, 1875, p. 196, we have recorded an instance where with strong probabilities of pregnancy we utterly failed to hear the fetal heart, though we fully expected to, and a very careful and prolonged stethoscopic examination was made. The solution of the difficulty was apparent a few hours after the examination in a macerated fetus.

The importance of ausculting the fetal heart during labor, especially if the latter be prolonged, we shall not urge, save in quoting the words of an emiment living obstetrician: "It is as useful for a conscientious accoucheur to auscult from time to time a woman in labor as it is to ascertain by touch the changes which occur in the inferior segment of the uterus."

Pajot has called attention to a sign of pregnancy detected by means of the stethoscope, which he declares as too little regarded, very valuable, more particularly from the fourth to the fifth month, and in cases where the probabilities of pregnancy exist, but where its certainty has not been established. To this sign he gives the name *choc fœtal.* Let the stethoscope be applied with care perpendicularly to the abdominal surface over the supposed uterine enlargement, and kept accurately in position by only moderate pressure. Now when a movement of the fetus occurs the ear is subjected to a double impression, one part affecting tactile sensibility, the other audition—a sensation of *shock* and of abrupt *bruit,* but quite faint, which one soon learns to distinguish from all other sensations given by the movements and the *bruits* of the abdominal cavity. It is, according to Pajot, a certain sign; very delicate, it is true, but often of greater value than all others. It is more easy to recognize at the time mentioned than the *bruits* of the heart, and frequently is heard before them.

As to other sounds heard in ausculting the pregnant uterus but little need be said; for they fail either in significance, in certainty, or in constancy. That which was most generally known as the *placental* has been more recently designated the *uterine souffle,* for the placenta is entirely foreign to its production, since it is heard best upon the sides of the uterus (Dubois, Depaul, Stoltz, Leishman), and may be heard after the placenta is removed. Peaslee states that in half the cases of uterine tumors he has examined vascular murmurs were heard. Spencer Wells speaks of the so-called placental murmurs as very similar to a sound common in large fibroids of the uterus. As early as 1829 Velpeau had insisted upon the same fact; and a few years later, in one of the Paris hospitals, an extra-uterine pregnancy, this *souffle* being distinct, was diagnosed by Bricheteau, Baudelocque, Laugier, Piedagnel, and others; peritonitis occurred, incision through

the vagina made, and the patient died, having no pregnancy of any sort. Even if the *souffle* referred to were peculiar to pregnancy, it gives no indication, according to Depaul, as to the state of the fetus; this latter may be feeble, vigorous, or dead, and the sound remain unchanged.

A *souffle* which has its origin in the umbilical cord has in some instances been recognized when the cord was about the child's neck, yet there may be the *souffle* without this; so that such sign, as Chantreuil remarks, is only presumptive, not certain, of this accident.

While the *choc fœtal* upon which Pajot has so strongly insisted is recognized when the fetus is small and there is ample room for it to move as a whole, motions in the later months of pregnancy, at least those which are abrupt, are of the extremities; but at this time the diagnosis has been settled, and the study by auscultation of these motions, so inconstant of occurrence, is therefore unnecessary.

Observers differ too as to whether any *bruit* is produced in the detachment of the placenta. Caillant in 1852 described it minutely, but Depaul failed after several examinations to recognize it from the description, and attributed the sounds heard to uterine contraction.

The illustrious French surgeon Boyer once jestingly asked if with Laennec's cylinder one could hear the grass grow; but let no obstetrician ask if this same cylinder is an essential for the practice of his profession.

INDIANAPOLIS.

Reviews.

Abortion: its Causes and Treatment. By WALTER COLES, M. D., St. Louis.

This is an elaborate paper of some seventy pages, only ten of which are occupied with the treatment of abortion. In the main this treatment is such as would be pursued by any intelligent physician.

Dr. Coles expresses great confidence in belladonna, locally applied, for the relief of uterine congestion. "One grain of the extract, either alone or combined with two grains of the aqueous extract of opium, made into a pill and applied to the os, enveloped in a bit of cotton saturated in glycerine at night," is his direction for using it; and quite probably this is a valuable method of treatment, though we can not see, in the misty meanderings of the words in this sentence, just why the cotton should be saturated in glycerine at night, nor the propriety in calling that which is not swallowed a pill.*

The author—very justly, we believe—discredits astringents administered internally for the relief of the hemorrhage of abortion. On the other hand, we believe he is mistaken in relying almost exclusively upon recumbent rest in retroversion of the pregnant uterus.

In certain contingencies he advises using Barnes's dilators. We are confident that any one will find Molesworth's much more easy of application, and in every respect preferable. If one of these is used, not only is the os effectually tamponed, but the bulb-like dilatation of the portion of the instrument within the uterus effectually detaches the ovum; there is no

* Elsewhere in this paper Dr. Coles refers to engrafting seeds, and again speaks of a focus of hemorrhage.

hemorrhage, and therefore no necessity for the "external pressure with the hand, ice externally and into the vagina, with frequent doses of ergot," which Dr. Coles advises in some cases. In fact the chilling and soaking patients with uterine hemorrhage by ice applications we have often thought were not without a peril greater than the supposed utility. The familiar dictum of Meigs, to the effect that a well-contracted womb can not bleed, is full of significance; but we should equally remember that an empty womb, as a rule, is a well-contracted womb, and that neither expectation nor the tampon when hemorrhage does occur is usually the best way to insure this empty condition.

While we differ in some things with Dr. Coles, and while we occasionally have got dizzy hunting his ideas through verbal intricacies and diffuseness, yet we regard his paper as very interesting, instructive, and useful, reflecting alike credit upon his professional reading and careful observation.

Retention in Utero of the Dead Fetus, considered particularly with regard to its effects on the Mother. By G. W. H. KEMPER, M. D., of Muncie, Ind.

This monograph was read by its author at the last annual session of the State Medical Society of Indiana. Dr. Kemper is one of the most painstaking and industrious of students, and after a careful examination of all the cases bearing upon this subject arrives at the following conclusions:

"*First*—In many cases where a dead fetus remains within the uterus the mother's health is seriously affected by its presence. This deleterious influence may be exerted whether the membranes are intact and whether the fetus has undergone putrefaction or not.

"*Second*—A dead fetus may be retained in the uterus preserved in the liquor amnii, or exist in a state of complete putrefaction for an indefinite time, and no ill consequences result therefrom to the mother.

"*Third*—There is no evidence to show that a living fetus is injured by the presence of a dead one in the same uterus.

"*Fourth*—In case of twins and triplets, whether a portion live or all die, the uterus is emptied at the normal term of gestation; no case being recorded, so far as I can ascertain, of two or more fetuses being carried beyond that term.

"*Fifth*—If the uterus contain but one fetus, and that perish, as a rule it is cast off at the end of nine months; but the exceptions are numerous, and the retention may extend beyond that period from one month to a series of years.

"*Sixth*—There is no positive means for deciding that a dead fetus exists in the uterus conjointly with a living one; therefore we would hardly be justified in using operative means in such cases.

"*Seventh*—In single conceptions, when the fetus perishes, the symptoms, as a rule, clearly indicate the fact. If no ill results follow, it is best to trust the case to nature. If the health of the mother suffer, or if the case be protracted beyond the term and give rise to inconvenience, the os should be dilated and the contents removed.

Paralysis from Brain-disease in its Common Forms. By H. CHARLTON BASTIAN, A. M., M. D., F. R. S., etc. New York: D. Appleton & Co. 1875.

The more one looks into this work the better he likes it. It lacks great bulk, yet it is comprehensive; its themes are condensed, yet they are perfectly clear; its illustrations are so fine that they free the text from all obscurity; in short, it is one of the cleverest books on a recondite subject that has been issued for a long time.

Moreover, there is a very general need of intelligence on the matter of the work; for though pretensive compilers east and west have treated at considerable length on the topics included in this work, yet their writings so much lack originality, and are so full of a labored purpose to display the authors as authorities, that they give more or less confusion to the topics.

Dr. Bastian is clear, because he is no copyist, no mere book-maker, but an original observer, and he writes what he knows in his own experience. Yet he avails himself of the labors of others in the anatomy of the brain and its vascular supply, in order to show how in paralysis we may very clearly, by the loss of external functions, locate the central lesion with great accuracy. Thus he brings out the recent researches of Heubner and Duret, who have with so much exactness ascertained the arterial supply to the most important regions of the basil and cortical portions of the brain and the cerebellum.

The variations of temperature in different phases of apoplexy are shown with great interest, and also the value of deviation of the eyes and head as diagnostic signs.

The functional differences of the two cerebral hemispheres form an exceedingly interesting part of the fifth lecture.

The sixth lecture, on regional diagnosis in brain-disease, is of immense value to those practitioners who see brain-lesions but seldom.

The eighth and last lecture relates to prognosis and the treatment of different stages of paralysis from brain-lesion, and shows within what limits we may fairly exercise our art.

It has not been attempted to give a review in extenso, or we would not have passed over the important notice of aphasia as connected with lesions of the territory of the left middle cerebral artery. The work should be in the hands of every practitioner. * * *

Archives of Dermatology: A Quarterly Journal of Skin and Venereal Diseases. Vol. I. Edited by L. DUNCAN BULKLEY, M. D. New York: G. P. Putnam's Sons. 1875.

An attractive and readable journal of some three hundred odd pages, consisting of the first four numbers of this valuable journal, and forming a volume for the ready reference of the student.

Clinic of the Month.

A Case of Congestion of the Liver where Puncture was resorted to, with Relief of Symptoms.—A Burmese convict was admitted into hospital on the 19th of June last, with intermittent fever. On the 22d of June, while under the care of Surgeon-major Blanc, of the Indian Army, he showed symptoms of an affection of the liver, that organ being enlarged and sensitive to pressure, and extending some four inches below the tenth rib. The general symptoms accompanying the affection not moderating, but the swelling increasing, it was resolved in consultation, and relying on the favorable report of Professor Maclean, of Netley, to puncture the liver with the needle of an aspirator. Accordingly needle No. 2 of Potain's aspirator was introduced into the most prominent part of the swelling, which was three and a half fingers' breadth below the right false ribs and four fingers' breadth from the median line. About an ounce of black blood was withdrawn, in which were mixed a few pus-corpuscles, as shown by the microscope. The operation afforded the patient undoubted relief, the respiration falling from 34 to 26, though the pulse and temperature were not specially influenced, the latter rising two degrees on the day following, but falling to its former standard on the second day. The liver, however, commenced contracting, and continued to do so for five or six days. About this time general œdema began to make its appearance in the limbs, and, becoming general, the patient gradually failed until death occurred, seventeen days after the operation. The autopsy showed that death was due to anasarca, the result principally of excessive fatty degeneration

of the heart, while the liver appeared to have nearly recovered its normal condition; so that, though the case terminated fatally, the operation was thought to have been beneficial rather than otherwise, the withdrawal of this small quantity of blood relieving the distended hepatic vessels from over-pressure, and so restoring them in a measure to their normal condition. (The Lancet.)

INTERIOR OF THE LARYNX IN BRIGHT'S DISEASE.—Dr. M. Heitler, of Vienna, contributes the following to the *Wiener Medizinische Presse*, September 26, 1875:

"That the lining membrane of the larynx is swollen in Bright's disease, that the sudden recurrence of œdema of the glottis in this affection frequently causes death, when previously no œdema could be observed any where in the body, are well-known facts. I became interested to discover the condition of the interior of the larynx in all cases of morbus brightii which fell under my observation throughout the entire course of the disease. For more than a year I have examined by means of the laryngoscope, at intervals of two or three days, all cases of Bright's disease which came into my division, and I will now report the results of these examinations. These are in some respects but fragmentary; for unfortunately it is but seldom possible to follow the case carefully to the end of the disease, whether it end in recovery or death. If the individual be very œdematous, we find that toward the end of the disease we must often omit the laryngoscopic examination, partly on account of the difficulties presented by the swelling itself and partly on account of the various additional complications. If the condition of the patients improves, particularly if the œdema subsides, they will leave the hospital very early, long before a cure can be effected. The urine usually still contains considerable albumen and other abnormal ingredients; and all our advice, all the statements of the great dangers still threatening them, prove

of no avail if they be relieved of that greatest of all torments, excessive thirst. With reference to my investigation of these cases I will remark the following: I have examined individuals whose urine contained albumen, cylinders, and various other abnormalities whose appearance we could attribute to a chronic inflammatory process in the kidneys, and in whom œdema was manifest now and then, or extended throughout the entire duration of the illness. I can not perhaps expand any farther on this point.

"The results of my investigations are as follows: The mucous membrane of the mouth is unusually pale in all persons suffering from Bright's disease; the uvula and the palato-pharyngeal arches alone are slightly reddish, the former at times slightly swollen and glassy. The lining of the larynx also exhibits this same paleness, unless it be in a catarrhal condition. In the majority of cases of Bright's disease there is a swollen condition of the parts in the interior of the larynx; indeed the swelling of the laryngeal mucous membrane is frequently the only œdema which manifests itself during the entire course of the disease. The œdema of this mucous membrane is either universal or partial; the universal œdema is always very unequal.

"Among the most frequent we find swelling of the ary-epiglottic folds, either one alone or both together. If the latter be the case, the swelling is very seldom regular, usually very disproportionate. It happens that while one ary-epiglottic fold is very much swollen, the other is not at all or but slightly œdematous. This swelling of the ary-epiglottic folds is often so great that the sinus pyriformes are almost completely filled up and form loose, glassy, shining tumors, considerably narrowing the aditus laryngis. This swelling does not always extend regularly over the entire ary-epiglottic fold; it is usually accompanied by a swelling of the posterior laryngeal wall, which at times is but very slight. Sometimes, however, the œdema of this portion far exceeds that of the parts before

mentioned. Under some circumstances it is so considerable that the dry, swollen mucous membrane overhangs the true vocal cords, completely obscuring them. Swelling of the false vocal cords is rarer; now one, then the other, is markedly enlarged, covering a greater or lesser portion of the true cords. If universal, the swelling, as above stated, is very disproportionate and by no means symmetrical. Thus, with a marked swelling of the ary-epiglottic fold on one side, we may have the false vocal cord on the other enlarged, etc. The position of the patient has no influence on the œdema.

"A catarrhal condition may be superadded to the swelling. We shall then have about the same appearance, with some redness and a more or less profuse mucous secretion. This catarrh may either extend over the entire mucous membrane or be confined to certain spots, as is often the case in simple idiopathic catarrh of this organ. The proportion between the swelling in the interior of the larynx and the œdema in the remaining portions of the body is extremely variable. As I have before stated, there is often a swelling of the interior of the larynx without any œdema in the remaining portions of the body; while on the other hand there are cases in which, with immense general œdema and considerable collections of fluid in the cavities of the body, the mucous membrane of the larynx is perfectly normal. The œdema often continues here long after it has disappeared from the remainder of the system. It frequently leaves simultaneously with the other dropsical symptoms, without any relapses, while in still other cases it is a regular accompaniment of the diminution and return of the general œdema."

Duration of Bloodless Operations.—At a recent meeting of the fourth Congress of the German Surgical Society Professor Langenbeck stated his opinion that it was of extreme importance to determine more accurately than has yet been done, how long a limb can be deprived of blood

during a bloodless operation without danger either to it or to the patient. He thought that the constriction could be kept up for a very long time without fear of gangrene, if the patient could only overcome the disagreeable sensation which the bandage caused. Experiments upon animals are, however, particularly needed to determine the exact limit of safety. In long operations on the bones—for example, in resections—it may be seen that the bloodlessness is not so complete in them as in the soft parts around, and that capillary bleeding occurs from them when not a drop of blood issues from the muscles. Professor Langenbeck continued, "I have recently kept up the constriction in excisions of the ankle-joint for an hour and a half without any ill effects. After this operation I always find a plaster-of-Paris bandage the most comfortable and useful dressing; but till lately there was one great disadvantage attending its use, namely, that it became soaked with blood as soon as it was put on. In the last two cases on which I have operated I have kept up the compression until the bandage was perfectly hard, and then cut large openings into it, so that the whole wound could be seen, and only then removed the constriction. The abundant hemorrhage which now occurs from the vessels of the periosteum and the bone soon stops if the femoral artery is compressed for a short time; with a little care the blood can thus be kept from soaking into the bandage." (Medical Times and Gazette.)

DAMIANA. — The Philadelphia Reporter, having recently quoted an article in which the efficacy of a new Mexican plant named Damiana as an aphrodisiac and nerve-tonic was loudly vaunted, states its instituted investigations as to its value, and reports thereon in its last issue. "In three cases we administered two full bottles of the extract to men, from twenty-five to thirty-five, suffering from exhaustion of the generative powers incident to excessive coition and self-abuse. From one of these we have not heard. The second reports,

after steadily using it for three weeks, a loss of appetite and 'so little improvement in the strength of the organs that he can hardly tell if there is any.' The third, an intelligent gentleman, writes in the same terms." The Reporter believes damiana to be useless, or nearly so.

FRACTURED CLAVICLE.—Almost innumerable devices have been employed in the treatment of fractures of the clavicle, but in this instance the broken bone had been permitted to unite without any special dressing. The man, on account of an "unhappiness of the bowels," was kept flat upon his back in bed, and union took place without serious deformity; for the shoulder had been carried by the position of the patient upward, outward, and backward very much more than usual when the case is left to nature alone. The result probably would not have been quite satisfactory to a young lady, but it was exceedingly good for a man past the middle period of life. (The Medical Record.)

TREATMENT OF BROKEN NOSE BY FORCIBLE STRAIGHTENING AND RETENTIVE MECHANICAL APPARATUS.—Mr. William Adams thinks that the subject of broken nose is one which has not been sufficiently noticed by the profession, notwithstanding that the resulting deformity and the interference with the voice and breathing are sometimes very great. He divides the so-called cases of broken nose into two classes, viz.: 1. Those in which the injury is limited to the anterior or cartilaginous portion of the nose, and consists essentially of depression, with lateral bending of the cartilaginous septum; a partial displacement of this septum from its attachment to the vomer also occurring in many cases. 2. Those in which the nasal bones are fractured, in addition to the depression and displacement of the cartilaginous septum from the vomer. His plan is to straighten the bent cartilaginous septum and bring it into a direct line with the vomer, using for the purpose

a pair of strong forceps with flat parallel blades, introducing the blades into the nostrils, and, in case of fracture of the nasal bones raising these also by carrying the blades directly upward.

External pressure can also be made by the hand to aid in the accurate adjustment of the parts. After this procedure he uses a steel compressor, consisting of two blades joined together at their bases and moved by a screw, so as to approximate or separate the blades, which are inserted into the nostrils so as to support the septum, the screw being only tightened sufficiently to bring the blades into contact with the septum, but without making any pressure upon it. This apparatus can be worn for two or three days and nights without removal. After this he introduces into each nostril an ivory plug, which can be removed and re-introduced by the patient at pleasure, so that both nostrils are kept moderately distended, and support given to the cartilaginous septum.

Support of the nasal bones by any plug introduced in the upper part of the nasal cavity would be impossible, owing to its small size and the sensitive character of the lining mucous membrane. For fractures of the nasal bones Mr. Adams has used a retentive apparatus externally, consisting of a pad adjusted by cog-wheels and attached to the front part of a steel band passing round the head, forming, as he says, a kind of nose-truss. This truss can be worn, he says, for two or three weeks, according to the extent of the injury, and in a case referred to in his article it was worn for a still longer period.

This forcible straightening of the nose does not have to be repeated except in cases of great severity. In none of the cases which he cites did he have the opportunity of applying the treatment within a month after the accident, and he thinks that undoubtedly its employment would be more easy and more effectual in proportion to the early period at which it

was employed after the accident; but of course, should there be much swelling and ecchymosis, it would be better to wait until these symptoms had subsided. In recent cases, however, it may not always be necessary to employ any retentive apparatus. (The British Medical Journal.)

Treatment of Diseased Joints with Sulphuric Acid.—The Medical Times and Gazette reports the treatment at Guy's Hospital of several cases of diseased joints by sulphuric acid. Three patients were thus treated, all of whom were suffering from advanced pulpy degeneration of the synovial membrane of a joint; and in one case a condyle of the femur was also necrosed. Four joints in the three patients were operated upon: in one the ankle-joint, in one the knee, and in one the knee and wrist-joints were the seat of disease. The mode of operating was simply to make one or more incisions into the joint, let out any flaky or puriform fluid which might be present, and then stuff strips of lint, soaked in one part of the sulphuric acid of the shops with two of water, into it. The parts were then covered with carded oakum and a bandage, and the limb was fixed on a splint. No great amount of pain, it is said, can be produced by the operation; for one of the patients seemed quite comfortable and without any sign of suffering when seen about half an hour after recovering consciousness from chloroform.

Deposition of the Ova of a Fly in the Nasal Fossæ.—A case of deposition of the ova of a fly in the nasal fossæ is reported in the Philadelphia Medical Times of October 30, 1875, by Assistant Surgeon W. F. Buchanan, U. S. A. He was called to a woman aged eighty, who was experiencing terrible suffering. Her son stated that two nights previously a fly had got into her nose while she was sleeping, and that she now had worms in her nose. The constitutional disturbance was great, but no worms could be seen. Two days later

there was great pain in the head, face, frontal and maxillary sinuses. The patient was delirious, her face was swollen, her eyes were closed by tumefaction, and there was a slight purulent discharge. Several maggots had appeared at the anterior nares, and one or two had been removed. Two days later the woman's general condition was much the same. Meanwhile maggots had continued to be discharged, and an opening had been caused by them through the soft palate and on the bridge of the nose. The orifices were injected with a solution of carbolic acid. In a day or two the patient began to improve, and then to rapidly recover. A portion of the anterior part of the soft palate of the size of a silver quarter of a dollar sloughed out, but afterward presented a healthy appearance, and seemed to be closing. There were in all about three hundred and twenty-five large maggots discharged.

Epidemic Puerperal Fever.—Prof. William T. Lusk, in an elaborate paper entitled "The Genesis of an Epidemic of Puerperal Fever," based upon cases occurring at the Bellevue Hospital, closes with the following remarks:

"A careful survey of all the facts recited seems to justify us in drawing two conclusions: 1. That puerperal diseases may be engendered by the atmosphere alone. This is shown by the experience in September, 1873. Here febrile disturbances were developed among the patients of the ward, which at once subsided on removing them to another locality, though in the new quarters no changes were made either in the doctors, the nurses, or in the utensils used. Nor was this an isolated experience. It owes its importance to the fact that the same thing had happened over and over again. The nature of the miasm can only be the subject of conjecture. The closure of the ward for the space of three or four weeks usually restored it to a healthy condition. The poisoned atmosphere invariably was generated in the ward set apart for the newly confined, and, as a rule, it rarely manifested any

special virulence except during the winter months, when the ventilation became imperfect. At a time when puerperal fever raged with greatest intensity the deposit of diphtheritic membranes, characterized by colonies of micrococci, upon all lesions about the genital organs seems to point to a parasitic origin. 2. That in distinction from the above there is a form of puerperal fever possessing eminently contagious properties, not primarily derived from a miasm, but capable in time of generating a poisoned atmosphere. In support of this proposition we find that a patient, at a time when the general health of the ward was good, was suddenly attacked by a fever presenting symptoms of intense severity. This patient died in a few days, and the autopsy revealed no local lesions. From the time of her attack onward there was no period when puerperal diseases failed upon the obstetrical service. Removal of the patients from the ward in which she was attacked, a change in the medical staff, and the utmost precaution regarding the use of utensils were of no avail. Through the agency of the nurses the disease was kept alive and active.

"After the epidemic had prevailed for a season it became characterized by the formation of diphtheritic membranes usually upon the external genitalia. At first prompt cauterization of the affected parts possessed a surprising influence in arresting symptoms that seemed to point to an inevitably fatal result. However, the occurrence of symptoms preceding the completion of labor shows that the poison found other channels of entry into the economy than the lesions resulting from childbirth. At first this miasmatic condition was not sufficient to produce fatal results. Subsequently, however, it reached a stage of development in which it alone rapidly produced death. Cauterization of the local lesions then ceased to possess any marked efficacy. Worthy of being remembered is the following fact: that three months later the obstetrical wards were occupied by the surgical service of Dr. Jas. R.

Wood, and that in the year's time that has since elapsed, though there have been many capital operations, not one case of septicæmia or pyæmia has occurred in that section of the 'tainted' hospital."

CYSTITIS IN A NURSING WOMAN.—Dr. Sullivan reports a case of easy labor with good recovery, followed six weeks later by dysuria and strangury, succeeded by a flow of pus from the bladder. The patient was treated for seven months by tonics and injections without benefit. Weaning was followed by relief, and the subsequent resumption of nursing by a return of the trouble. Another similar case recovered upon the removal of the child from the breast.

SPONTANEOUS CURE OF COMPLETE RUPTURE OF THE PERINÆUM.—Dr. F. D. Lente, in a paper read before the New York Obstetrical Society, relates the following case. It is a matter of some surprise that this most interesting and instructive case has not before this been recorded. Even at this late day it should be universally copied for the benefit of practitioners. Writing of cases in which complete rupture of the perinæum may become united spontaneously, Dr. Lente says:

"Some years ago two of my intimate professional acquaintances were interested in such an exceptional case. One was the late Prof. Geo. T. Elliot, the other Dr. John G. Perry. The vagina of this lady was the smallest and most rigid which Dr. E. had ever met with, which led him to caution her friends that laceration would probably occur. It became necessary to resort to the forceps; and although he used the smallest and lightest in his possession, and all the usual skill and care for which he was distinguished, an appalling laceration did occur, splitting the sphincter ani and the vagina *throughout its whole length to the bottom of Douglas's cul-de-sac.* He was of course horror-struck at its magnitude, and naturally solicitous to repair damages at once. But Dr. Perry, whom

he strenuously urged to operate, very properly, in my opinion, although specially qualified to do so, declined to accede to his request. His own cooler judgment told him subsequently that it would not have been prudent, and the unlooked-for result proved that it would have been entirely unnecessary. The patient's bowels were not kept confined by opium, as is usually enjoined in such cases, but were solicited to a regularly by enemata. Dr. Elliot afterward informed me that this extensive wound healed promptly, spontaneously, and thoroughly. He attributed the spontaneous healing of the vaginal portion to the firm and rigid condition of its walls, the very circumstance which doubtless led to the accident. Dr. Perry has since attended this lady in a confinement which presented no unusual difficulty, and the perinæum has stood the test a second time in Paris. Her health has continued good."

On the Use of Tepid Baths in the Febrile Disorders of Infants.—Dr. Meyer, in the *Deutsches Archiv für Klinische Medicin*, March 8, 1875, gives the results of some experience in the application of this treatment to infants under a year old. In two cases of decided pneumonia in children of seven and eight months old he gave baths at 84° and 80° Fahr. In febrile affections with digestive disturbances he gave to infants under two months old baths varying from 93° to 79° Fahr.

A case related by Dr. Lutz, concerning an infant twenty-eight days old, who was attacked by ambulatory erysipelas, deserves careful consideration, for it is certain that in this instance the cure was due to cold baths. The author adds that he has seen a child of three weeks old submitted to the same treatment recover from a very serious attack of ambulatory erysipelas. On the second day, the day temperature was 104.36°, the night 105.6°; a bath of 89.6° was given. After the bath the temperature gradually diminished, and

the child recovered after the appearance of a subcutaneous phlegmonous abscess.

Erysipelas erraticum belongs to those morbid forms which are successfully treated by baths. The temperature of the bath should be low in proportion to the infancy of the patient.

This treatment is also of the greatest utility in the gastro-intestinal febrile catarrh, which often appertains to infectious diseases, and, in Dr. Meyer's opinion, arises in infants from typic virus or some analogous poison. Thus he saw an infant three months old, whose brother, fourteen months old, had been successfully treated for acute typhoid fever by cold baths and quinine, and while there was another case of the same disease in the same house, suddenly attacked in the night with gastro-enteritis, and the next day show a central temperature of 107.6°. Dr. Meyer was only called in a short time before death, and could do nothing for the child, whose case he quotes only to show the relationship between typhus and what is supposed to be idiopathic gastro-enteritis.

As collapse is rapid in children, and the cooling of the extremities very quick, no notice is taken of the elevation of the temperature when the thermometer is not used. These very rapid gastro-enterites are essentially different from those which are connected with digestive disturbances, and to which a good hygienic treatment suffices to render the prognosis favorable. Rilliet and Barthez have demonstrated that the intestinal lesions of infantile dothin-enterites are much less marked than they are in the adult. On the other hand, vomitings in infantile typhoid fever are very frequent, and thus much of infantile gastro-intestinal catarrh may depend on typic infection, in the same way as Liebermann and Hagenbach admit to be the case in the febrile catarrh of adults. However, Dr. Meyer reproaches himself with not having up to the present time endeavored to ascertain if in these circumstances the spleen was enlarged. He quotes a case in which treatment by cold baths was employed. Collapse, imminent

death, vomitings, and diarrhea were present. The rectal temperature was 104.9°. A bath with an initial temperature of 95°, gradually lowered to 86°, was given for eight minutes. The child was quieter after the first bath. Directions were given to take the rectal temperature every three hours, and to give a fresh bath so soon as it exceeded 103.1°. It only reached that height once after the second day. After the first bath the moanings ceased, and the child, who until that time had refused all food, began to take it, and finally recovered. In a similar case there were convulsions, after which the rectal temperature rose to 104.5°. The bath was cooled from 93.2° to 80.6°, and then repeated; the first day the temperature keeping itself above 103.1°. The next day the temperature was normal, and recovery ensued. These cases encourage Dr. Meyer to employ baths so soon as the temperature exceeds 103.1° in dothin-enteritis, pneumonia, scarlatina, erysipelas, in fact in all diseases showing a high temperature. The number of cases will certainly increase if while combating the gastro-intestinal symptoms means can be taken to lower the fever. How young soever the children may be, the cold baths may be used; but, unless there be precise indication to the contrary, the temperature of the bath should not fall below 84°. (London Medical Record.)

On the Use of Cold Baths in Cerebral Rheumatism.—At a meeting of the Société des Hôpitaux of Paris (*Bull. Gén. de Therap.*, March 30, 1875) the use of cold baths in cerebral rheumatism was the subject of discussion, M. Féréol introducing to the members an account of a case so treated. The patient was thirty-four years old, of quiet and temperate habits, who was suffering from acute articular rheumatism. He was treated at first with emetics, sulphate of quinine, and colchicum, but in five days he was seized with delirium, agitation, and dyspnœa, and at the same time the pains in the joints disappeared. The temperature of the body rose to 40°

Cent., and leeches, calomel, and bromide of potassium were given without success. The temperature rose further to 41°, and blisters were placed on the hairy scalp and digitalis was given. There was then a little more rest, but the aspect was typhous, with stupor and continuous subdelirium, sleeplessness, agitation of the muscles, subsultus tendinum, dry tongue, etc. After some consultation with other physicians it was determined to try the effects of cold baths as the only remaining resource. This plan was pursued for a whole week, the patient remaining under close observation the whole of the time, and the thermometer being almost fixed under the axilla. As soon as the temperature rose to 39.5° the patient was plunged into a cold bath. From the 25th of February to the 3d of March sixteen baths were administered at a temperature varying from 21° to 25° Cent., and the duration of each bath was twenty minutes on the average. The patient always raised the temperature of the water from one to two degrees, and on leaving the bath his own temperature fell to 36°. After several fluctuations and much anxiety on the part of the medical attendants, the patient eventually recovered completely. M. Féréol insists on the absolute necessity of constant and intelligent supervision during this mode of treatment, and he states that the life of the patient depends on such care being unintermittingly bestowed. This was the third case of cerebral rheumatism cured in France by the use of cold baths. Dr. Dujardin-Beaumetz, in making some observations on M. Féréol's case, thought that it was necessary, before laying down precise rules as to the treatment of cerebral rheumatism by cold baths, to determine what was meant by the disease in question. He believed that the treatment was inapplicable to many of the cases of cerebral rheumatism so called, and that it was only adapted to that form of disease described by Trousseau as *névrous rhumatismale*, and by Wunderlich as *maladie rhumatoide à forme nerveuse.* (Brit. and For. Med.-Chir. Rev.)

Supernumerary Nipples.—Dr. Richardson, at a meeting of the Obstetrical Society of Boston, described the case of a colored woman, forty years old, the mother of eleven children, a recent patient at the lying-in hospital. Her breasts were enormously large, and on the left were two distinct nipples, the lower nearer the median line than the upper, and separated by a strongly-marked transverse furrow. When the breast was full, nursing from one nipple drained only a portion of the breast, and then the other nipple could be nursed. There was, as far as could be made out (the woman was very black), but one areola to the two nipples. The right breast was perfectly normal.

Bromoform as an Anæsthetic.—Bromoform in a pure state, as obtained by Rabuteau from the action of an alkali upon bromal, appears in the form of a clear, very heavy, and agreeably-smelling fluid. Iodine dissolves in it, and colors it of a carmine-red color. The mode of action of bromoform resembles that of chloroform very closely. When administered in the form of vapor there is a period of excitement, which is followed by deep sleep, in which there is complete anæsthetic relaxation of all the muscles and dilatation of the pupil. The awakening from the effects of the agent takes place tolerably rapidly, even if the inhalation has been continued for half an hour. Rabuteau hopes that it will come into use. (Practitioner, Sept., 1875, from *Société de Biologie*, Jan., 1875.)

Regimen of Infancy and Motherhood.—Chambers in his late work (a Manual of Diet in Health and Disease), under the head of "Regimen of Infancy and Motherhood," writes:

"The child should be put to the mother's breast as soon as she awakes from her first sound sleep after its birth; and the waiting for three or four days is 'an old-fashioned relic of the days of drugging, when it was considered wrong that

the young bowels should be relaxed by the colostrum of the first milk, but right that they should be griped with castor-oil.' The education of the infant must begin immediately after birth. It has to be taught not to be always sucking whenever the whim takes it or the mother comes in sight. With regard to the choosing of a wet-nurse, he says every physical condition is unimportant compared with a knowledge of the regularity of the catamenia.

"A poor married woman, however respectable, is removed from a starving home to sudden abundance, and invariably overeats herself, and it is fortunate if she does not overdrink herself too. She pines and grows anxious about her own child, if it is alive, and insists upon having her troublesome husband to see her openly or secretly, on the pretense (a fallacious one) that his visit increases the flow of milk. Moreover, a rich mother can not but feel some compunction in purchasing for her own offspring what is stolen from another, who is sometimes seriously affected by the fraud and retires disgusted from this false world.

"At all events a trial ought to be first made, under the superintendence of a medical man, of fresh cow's milk or goat's milk and of Swiss condensed milk.

"Cow's milk should at first be mixed with half its bulk of soft, pure, tepid water, in each pint of which has been suspended a drachm of 'sugar of milk' (which is procurable at any chemist's, being used for grinding up powders) and two grains of phosphate of lime finely powdered. If the milk has been partially skimmed, as is often the case in cities, then a good table-spoonful of cream should be added to each pint, to make the mixture equal to human. If it has not been skimmed, a couple of tea-spoonfuls of cream is sufficient. The advantage of using goat's milk is that the animal can be brought up to the very nursery, even in cities, and will supply nourishment directly to its little master's lips if called upon. Children do not seem to dislike the peculiar taste.

Swiss milk* has been already alluded to in the second chapter of the first part. No inconvenience has as yet been proved to arise from its use, but at the same time no superiority to fresh cow's milk has been confirmed. As it is already sweetened in the preparation, no additional sugar is required; but care must be taken to dilute it sufficiently to make it resemble not ordinary milk, but milk and water. Laputa never devised any thing more preposterous than 'Liebig's food for infants.'

"The best diet for an infant during the first six months is milk alone. It is true, man is a tough animal, and can stand with impunity much rough usage, and therefore a vigorous baby often seems none the worse for a certain quantity of farinaceous food; but the first appearance of flatulence, gripes, screaming, ill temper, or other ways infants have of complaining of dyspepsia, should make the nurse desist from these attempts to hurry on natural development. It is only when the coming teeth are on their road to the front that the parotid glands secrete sufficient saliva to digest farinaceous food. When dribbling begins, then is the time to begin with the various preparations of these substances bountifully supplied by nature and art. Till then any thing but milk given to a healthy baby must be tentative, and considered in the light of a means of education to its future dietary, and must not take the place of milk."

Treatment of Acute and Subacute Mania.—Dr. F. Peyre Porcher records in the Charleston Medical Journal the following outline of treatment which is employed in the lunatic-wards of the Charleston City Hospital:

"We find stimulants (whisky or wine) serviceable in broken-down subjects, in those suffering from the effects of exhaustion, protracted exposure, anxiety, want of proper food, etc. In such cases anæmia of the brain or the deficiency of healthy blood is the *cause* of the manifestation of

* Condensed milk.

disordered action in the brain and the failure of the power to co-ordinate ideas—maniacal delirium. Stimulants combined with rest and quiet, with suitable food, will often restore in a very brief period such patients to consciousness, and greatly improve their condition, as we have repeatedly observed.

"We select sedatives where stimulants do not appear to be indicated, as where the above-mentioned conditions are wanting, as in simple acute mania. Having long since used Hoffman's anodyne in the treatment of delirium tremens, we now employ with great benefit in acute mania the following extemporaneous combination, occasionally varying the proportions:

℞. Bromide of potash, ... ʒij;
Hoffman's anodyne, ... ʒiij;
Chloral hydrate, ... ʒiss;
Tinct. valerian, ... ʒiv;
Water, ... ʒvj.

Dose, a dessert- to a table-spoonful given every three or four hours. We have never had occasion to add morphia to the above mixture.

"It is the result of our own observations that there is still another form of acute mania, differing markedly from the above and requiring very different remedies, of which a few cases have fallen under our notice. It is periodical in its character, and caused by rheumatism — the rheumatic diathesis, which affects the meninges of the brain, giving rise to a frenesia. The treatment is by tartar-emetic and colchicum, or guaiac. We have had the most violent cases to recover after making the diagnosis as to its nature and varying the treatment as above stated. We do not use the shower-bath."

Plugging the Nasal Cavities.—Dr. T. H. Jewett describes (Philadelphia Medical and Surgical Reporter) the following simple plug in nasal hemorrhage: Roll up a lock of cotton into a cylinder an inch or an inch and a half in length; tie

a strong thread to the middle of the roll; bring the two ends of the roll together, and then, opening the nasal orifice, pass the middle or folded part of the roll into the nostril; next, with the blunt end of a lead-pencil press in the cotton roll slowly, along the floor of the nose, one inch or more, and rest. If the blood passes down into the throat, you may be sure the bleeding spot is behind the roll; so push in your roll further, and the blood will cease to pass behind. Then, holding on to the string, pass some loose cotton into the nostril and push it down to the plug. The cotton will swell with the moisture and arrest the hemorrhage. In a day or two the natural secretions of the nasal surfaces will loosen the plug, and it may be easily removed by the string.

Nine Cases of Stone in the Bladder.—Dr. David W. Yandell, Professor of Surgery in the University of Louisville and in the College of Physicians and Surgeons of Indiana, etc., contributes the following interesting cases to the Louisville Medical News:

"Four of the cases that I am about to report occurred in persons under the age of puberty, and were all cut by the lateral method. Five cases were in adults. In three of these the stone was crushed. In one the calculus was too large and hard for lithotrity, and was removed by the knife. In another it was removed by cutting for other reasons. A feature in this case is so curious as to be worthy of mention. While he had stone he was also the subject of frequent attacks of spasmodic asthma. I learn that from the date of the lithotomy he *was relieved of his asthma, never having another seizure.* In eight cases there was but a single calculus. In one there were two calculi. In three of the boys their mothers were confident that there had been trouble in micturition from their earliest infancy. In one the first symptoms of stone had been noticed five years before the operation, and had succeeded upon an attack of nephritic colic. In the five

adult cases bladder trouble was preceded in all by attacks of nephritic colic.

"*Case* 1.—A lad aged sixteen, from Henry County, Tenn., in good health till twelve years of age, had at that time a violent attack of colic, which was thought by his physician to be connected with the passage of a calculus from his kidneys to the bladder. Some months after this he had symptoms of vesical calculus, which continued during four years, when I cut him at the surgical clinic of the University, and removed a phosphatic calculus one inch and a half in its longest and one inch in its shortest diameter, weighing three hundred and seventy-five grains. He recovered in good time without a drawback.

"*Case* 2.—Aged eleven, from Grayson County, Ky., sent to me by my friend Dr. Heston. Symptoms of bladder trouble from earliest infancy. Cut at surgical clinic in the fall of 1873, and a phosphatic calculus removed an inch and three quarters in its longest and an inch and a quarter in its shortest diameter, weighing six hundred grains. Speedy and complete recovery.

"*Case* 3.—A boy aged three years, who was observed to have difficulty in passing his water in a few days after his birth, was kindly sent to me by my friend Dr. Knapp, of this city. I operated on him just after Case 2 at the surgical clinic, and removed a uric-acid calculus about the size of a large filbert, weighing sixty-seven grains. Quick recovery.

"*Case* 4.—A boy aged four years, with trouble on micturition from very early infancy, was sent to me by my brother, Professor L. P. Yandell, Jr. I cut him before the class of the University in December, 1874, and removed two ammoniomagnesian calculi, each as large as a chestnut, weighing one hundred and forty-three grains.. Recovered in good time.

"*Case* 5.—Mr. ——, aged twenty-seven, living near Crawfordsville, Ind. Had symptoms of stone following an attack of nephritic colic, which occurred six or seven years ago.

The patient was brought to me at Indianapolis, Ind., December 4, 1875, by my friend Dr. Irvine, of Crawfordsville. I first attempted lithotrity before the class of the College of Physicians and Surgeons at Indianapolis, but found, as had been predicted by Dr. Irvine, the calculus both too large and hard for this operation. On the afternoon of the same day I extracted a stone through the lateral incision, which measured two and a half inches in its longest and one inch and a quarter in its shortest diameter, weighing eleven hundred and twenty-five grains, composed of oxalate of lime. The patient has gone on without any thing untoward, and may now be considered well.

"*Case* 6.—Mr. ——, aged twenty-two years, from Meade County, Ky., had been for many years a sufferer from stone and from asthma. I removed from him a uric-acid calculus a little over an inch in diameter and weighing two hundred and ninety-four grains, choosing lithotomy for the reason that the patient preferred being operated on at his home, which was some distance from Louisville. I had in this operation the valuable assistance of the distinguished lithotomist, Dr. Gardner, of Woodsonville, Ky. The recovery was speedy and complete.

"*Case* 7.—Colonel P., from Ripeyville, Ky., aged sixty, sent to me by my friend, the late lamented Dr. Chambers, of Lawrenceburg. First vesical uneasiness occurred after an attack of nephritic colic in 1867. I did lithotrity with Sir Henry Thompson's lithotrite in May, 1874. The bladder was so irritable that the sitting was a very short one. Furious cystitis followed; and, as I thought, threatening the life of the patient, I gave him chloroform, went into the bladder the third day after, and crushed every fragment I could seize. The cystitis began at once to abate, but the case proved exceedingly tedious, the bladder at no time being tolerant of the lithotrite, and the fragments being excessively sharp and irritating. The patient was finally sent home rid of his

calculus after eleven sittings. His bladder has remained in good condition. The calculus was of the uric-acid variety, and weighed four hundred grains.

"*Case* 8.—Colonel C., of Western Kentucky, aged sixty-three, brought to me by his son, Dr. C., now of Macon, Ga., had symptoms of stone for five or six years back, dating from an attack of nephritic colic. I performed lithotrity upon him a few days after case 6, removing a phosphatic calculus weighing two hundred grains. Four sittings were required to perfectly crush this stone and double as many to remove the fragments, complete atony of the bladder occurring. After the first sitting this latter condition was slowly overcome by general tonics and cold-water irrigations of the bladder.

"*Case* 9.—Mr. M., aged forty years, from near Milton, Ky., who came to me from my esteemed friend Prof. Joseph G. Rogers, of Madison, Ind., had been annoyed with stone for several years, the first symptoms supervening on a nephritic colic. I did lithotrity on him last winter, getting away a phosphatic calculus in three sittings which weighed two hundred grains. Mr. M. left the city in a little over a fortnight entirely relieved, and has remained so."

Elastic Silk Ligature.—Dr. A. N. Talley, of Columbia, S. C., in treating of the substitution of elastic silk for the caoutchouc ligature, writes:

"In the use of the ordinary caoutchouc ligature I have encountered this practical difficulty, that when sufficient traction is made upon it to effect the requisite degree of compression, on the necessity of which I insist, its rupture is endangered by making the knot to secure it. To obviate this accident I have for some time past been in the habit of using the silk elastic cord, which combines the contractility of the caoutchouc with the tenacity of the silk. With such a ligature any necessary amount of force may be exerted at the

same time that the knot is securely made, without the risk of breaking it. The theoretical objection that such material is liable to absorb septic elements from the wound, and so to constitute a source of irritation, if not of contamination, is met by the answer that experience has failed to demonstrate the fact; that, on the contrary, it has been proven to be not only more effective in respect of the merits claimed for it of greater strength and security, but also to be as inocuous as the gum elastic." (Charleston Medical Jour. and Review.)

UNMANAGEABLE VOMITINGS OF PREGNANCY.—The *Journal de Médecine et de Chirurgie* quotes a communication from M. Tarnier respecting a case in which in a multipara in the third month of pregnancy serious unmanageable vomitings were arrested by the simple application of a plug of wadding to the vagina. He collates with this fact three cases published in the British Medical Journal, in which Dr. E. Copeman saw very serious vomitings arrested by the dilatation of the neck of the uterus. In the first place the digital dilatation of the neck was to have been followed by puncture of the membranes to induce abortion at six months. A fortunate delay demonstrated to Dr. Copeman that dilatation had a great influence on the arrest of the vomitings. Pregnancy went on in due course, and the patient was delivered at the proper time. In a second case the result was intentionally sought and obtained in the second month of pregnancy. In a third pregnancy had reached the eighth month. The vomitings were also stopped, and the patient was delivered eighteen days afterward, when she had already regained some strength. The plug prevents the shaking about of the womb; the dilatation of the neck detaches the membranes over a certain space, and prevents the twitchings or distension of the internal orifice. (British Medical Journal.)

Notes and Queries.

CONGENITAL DEFORMITIES ATTRIBUTED TO MENTAL CAUSE. Dr. Madison Hammel, of Circleville, Ohio, narrates the following:

"Mrs. ——, twenty-seven years of age, has given birth to four children, the first and fourth being perfect in physical conformation; but the intervening two, one a boy and the other a girl, present the following defects: in the right hand of one the middle finger, as well as the corresponding metacarpal bone, is entirely absent; and in the left hand there is neither index nor middle finger; in each foot the second and third toes, with their corresponding metatarsal bones, are not found. The left hand of the other has the same deformity as has the right hand of the first, while the right has the deformities of the left; the right foot is perfect, but the left is just similar in its defects to the feet of the first described.

"And now for the alleged cause. Both father and mother are perfectly formed, and, so far as known, none of their ancestors had any deformity; but the mother, when pregnant about one month with the first of these two children, was so frightened by a mad hog that she fainted, remaining insensible for some time. And indeed one looking at these fissured feet and hands might have naturally suggested the cloven hoof of a hog."

We give Dr. Hammel's narrative without having the photograph which accompanied it engraved, as the simple statement of the peculiar condition is clear enough, merely adding that whenever we read or hear of most of these examples of maternal impressions producing fetal deformities we are reminded

of a story read long ago in Montaigne, so long ago indeed that we can not refer to page or date. A mother brought to one of the European kings her infant covered with hair; thus it was born; and the king being curious to know the cause of such a remarkable event, she told him that she had a picture of John the Baptist hanging in her bedroom.

AMENORRHŒA CONSEQUENT UPON CYSTIC DEGENERATION OF THE OVARIES.—E., eighteen years of age, was admitted to the City Hospital, Indianapolis, on the 17th of December, suffering, as she and her friends alleged, from taking oil of tansy. She had not been unwell for three months, and doubtless, suspecting that she was pregnant, had used the drug with the hope of producing abortion. She lived eight days, suffering much from violent pain in the back part of the head and neck, frequent vomiting, clonic convulsions, some hemorrhage from the womb, and for two days before death was unconscious, the temperature during this last period being most of the time 104°. In the only two fatal cases of poisoning with tansy reported to which we have had an opportunity to refer (American Journal of the Medical Sciences, Vol. XVI, p. 256, and Vol. XXIII, p. 136) death occurred in a few hours; so that it is remarkable, if the same cause produced death in this case, the fatal result was so long delayed.

However, we wish now—omitting further reference to the history of the case and a detailed account of post-mortem appearances, both of which, we hope, will be given our readers by another pen—to mention the condition of the breasts, the uterus, and the ovaries especially.

Upon examining the first we had no hesitation in saying that we did not believe she had been pregnant; and, as predicted, the uterus was found to be very nearly normal as to size, form, and weight, and entirely empty. But the ovaries had undergone complete degeneration. A quite fluid cyst occupied the place of each, one of these cysts being larger

than a pullet's egg, the other somewhat smaller. The significance of amenorrhœa in connection with such degeneration must be quite obvious to those who hold to the ovular theory of menstruation. So too the folly and madness of taking so dangerous a medicine as tansy to correct amenorrhœa is also apparent.

It is to be regretted, in the interest of science at least, that no history of this poor girl's previous condition could be obtained. She was one of those misguided and unfortunate ones who had strayed from her home to make a living as a dancer.

KNEE-AND-ELBOW POSITION IN SHOULDER-PRESENTATION.—The credit of first using this position is certainly not due to any one of the present century. In Smellie's *Collection of Preternatural Cases and Observations in Midwifery*, Vol. III, p. 232, we find narrated a case of presentation of the right shoulder, occurring in 1753, in which this distinguished obstetrician had the patient put on the knees and elbows, having failed to turn, the patient lying on her back. He thus states the plan and the result: "Finding the contraction of the *Uterus* so strong, and the strainings of the patient so great that I could not reach the feet, I caused her to be turned to her knees and elbows to prevent further strainings. While she was kept firm in this position by the assistants, I introduced my hand again, and finding the resistance less I pushed it up gradually, along the fore part of the *Uterus*, where I found one of the legs, which I brought down; then pushing up the shoulder and pulling the limb alternately, as in the former case, I extracted it without the *Os Externum*." Not only in this case, but in others recounted in his "*Collection*," did Smellie use this position, and once he speaks of it as "Daventer's method." Deventer, as the name usually appears nowadays, was originally a watch-maker, and published a work on Midwifery in 1701.

Bromide of Potassium in Saccharine Diabetes.—In one of the earlier numbers of this journal Professor Austin Flint reported three cases of diabetes mellitus treated by the bromide of potash, and suggested to physicians to make trial of this agent "in order to determine whether it be not entitled to be classed with other remedies which are sometimes useful." Its usefulness seemed to be clearly manifested in one of the cases detailed by Dr. Flint.

An esteemed medical friend, Dr. Jas. Ely, of Milton, Ky., writes that he is now treating a case of saccharine diabetes with large doses of the bromide of potassium and tincture of digitalis. "I rely," he says, "on the potash salt to relieve pain and contract the capillary arterioles, and the digitalis to give tone to the heart and arteries, relieve the blood-stasis in the brain and spine, and thus prevent the dilatation of the arteries and the degeneration and decay that follow in the brain and spine. My patient is much better and has better use of his limbs, suffers no pain, has recovered his sexual appetite, while his skin has become moist and natural; but in spite of my injunctions he will sometimes disobey orders and eat farinaceous food, always to his injury."

It is to be hoped that the suggestion of Prof. Flint will be acted upon by other physicians, and the true therapeutic value of the bromide of potash as a remedy in diabetes be determined. The suggestion of Dr. Ely to use the tincture of digitalis at the same time may be of some value also.

Death occasioned by Musical Excitement.—A stout married countrywoman, some twenty-eight years old, went to a festival, where for the first time in her life, says the *Repertorio del Piemonte*, she heard a powerful orchestra. The festival lasted three days, and she danced with much satisfaction during its whole continuance. When all was over she returned home, but the music, at least subjectively, returned with her. Do what she would, day and night and always,

the music sounded in her ears. Nightly sweating and diarrhea ensued. Medical interference proved fruitless, and at the end of six weeks, during all which protracted period the imaginary orchestra never ceased for one minute, quite exhausted, the poor creature at length expired. (The Doctor.)

Death during Anæsthesia induced by Sulphuric Ether. On the 13th of November, at the New York Homeopathic Medical College, a man died during an operation for the removal of caries of the upper jaw. Ether was the anæsthetic employed. No stertorous breathing was present, and the operation was arrested by the sudden appearance of great blueness of the face. Every means were employed to resuscitate the patient, but without avail. The autopsy disclosed a fatty and attenuated heart. (N. Y. Evening Post.)

A New Food.—A society of rat-eaters has been formed at Gembloux, in Belgium. The members meet once a week, and the proceedings are wound up by a grand banquet, in which preparations of that delicious animal hold a prominent position. This society, following the example of the Hippophagic Society, wishes to destroy the prejudice attached to the flesh of these little animals. In the furtherance of this object a learned Belgian has been at pains to discover that the ancient Romans formerly ate gray mice seasoned with acorns and chestnuts. Buffon relates that the inhabitants of Martinique eat mice, and are especially fond of musk-rat. (The Medical Record.)

The Transylvania Medical Association.—This is a new district organization, formed by the physicians of Franklin, Shelby, Henry, Oldham, and Anderson counties, Ky., which held its first meeting at Shelbyville, November 3, 1875. We notice among its members the names of many of the leading physicians of the state, and we shall be disappointed if the

meetings of the society are not profitable to both those who participate in them as well as to the profession at large. The officers elected for 1876 were—*President*—Dr. U. V. Williams, Franklin County; *Vice-president*—Dr. S. P. Bryon, Oldham County; *Secretary*—Dr. R. F. Logan, Shelbyville; *Treasurer*—Dr. J. S. Ford, Shelbyville. The association will meet quarterly. Its next meeting will be held in Frankfort on the first Wednesday in February.

FOUR THIEVES' VINEGAR.—A report of the plague in 1760 having been circulated, Messrs. Chandler & Smith, apothecaries at Cheapside, had taken in a third partner, Mr. Newson, and while the report prevailed these gentlemen availed themselves of the popular opinion, and placed in their windows a written notice of "Four Thieves' Vinegar sold here." Mr. Ball, an old apothecary, passing by and observing this, went into the shop. "What!" said he, "and have you taken in another partner?" "No." "Oh, I beg your pardon," replied Ball; "I thought you had by the ticket in your window." (Memoirs, etc., by W. Wadd.)

DEATH OF PROFESSOR BENNETT.—As all that relates to the life of this illustrious physician is of interest, we copy the following from an Edinburgh paper:

"Dr. Bennett was born in London in 1812. From an early age he would seem to have been destined for the medical profession, and with this view, in 1829, articled as a pupil with the late Mr. W. Sedgewick, surgeon, Maidstone, the intention at the time being that he should follow the usual course of study for the London College for Surgeons and Apothecaries Company. The apprenticeship, however, was suddenly terminated, owing to some misunderstanding between the parties, and young Bennett thereupon resolved to prosecute his studies in Edinburgh. After graduating with the highest honors, while obtaining the gold medal for a surgical report, and receiving high commendation from Sir C. Bell for his thesis on a physiological subject, Bennett, in 1837, proceeded to

Paris, and for two years studied clinical medicine and the use of the microscope, also perfecting that intimate knowledge of the French language for which he was distinguished. He founded the Parisian Medical Society, of which he was the first president. After visiting Heidelberg, Berlin, and other universities, he returned to Edinburgh in 1842, and entered upon that brilliant career which made him at one time the foremost man in his profession. In 1843 he received the appointment of pathologist to the Royal Infirmary of Edinburgh, and five years after was nominated to the chair of the Institute of Medicine in the university.

"Dr. Bennett devoted himself to investigations which resulted in many valuable additions to the science of medicine. In 1845 he discovered the disease of the blood which he termed leucocythæmia, on which he published an elaborate treatise. He wrote a treatise on poisoning by hemlock, to prove that it was the drug used at the execution of criminals in ancient Greece, with special reference to the description of the death of Socrates given by Plato. The most important of his numerous works is his 'Clinical Medicine,' which has run through many editions in this country and Europe, and been translated into numerous languages, including Russian and Hindoostanee; another is his treatise on pneumonia, in which he shows that since the practice of bleeding for inflammatory diseases had been discontinued the mortality from this class of disease had decreased in a remarkable manner. He contributed to the transactions of the British Association for 1869 an essay on mercury, the use of which in diseases of the liver he had always strongly opposed.

"About ten years ago Dr. Bennett was seized with an affection of the throat, and obliged to obtain leave of absence from a winter session. Rest appeared to restore health for a time, but when, in August, 1871, he delivered an address at the ceremony on medical graduation, his friends could not help observing that he was suffering greatly. Struggling manfully against physical weakness, he began the work of the session of 1871–2, but after lecturing until the Christmas vacation he became so ill that he had to retreat to Menton.

"The summer of 1872 found the patient again at home; but in November he was compelled, after delivering only two lectures, once more to withdraw to the south. The following winter he was unable to resume professional duty, and at length, in July, 1874, he

resigned the chair, having fairly made up his mind to quit Edinburgh and establish himself permanently at Nice. Having quitted his retreat in August last for the purpose of receiving the LL. D. from the Senatus of Edinburgh University, Dr. Bennett became seriously ill in the course of the journey, and on being examined in London was found to be suffering from stone. With characteristic fortitude he went to Edinburgh, where he renewed acquaintance with old friends during the recent sittings of the British Medical Association; and then, about four weeks ago, betook himself to Norwich for the purpose of undergoing lithotomy at the hands of Dr. Cadge. The operation was successfully performed on the 17th, and for three or four days the patient seemed to be going on well. It turned out, however, that the strain had been too much for his enfeebled frame; and after rapidly sinking for two or three days he breathed his last, in the midst of his attached family, having only attained the age of sixty-three."

DR. JOHN D. JACKSON.—We hope to be able to present in our next number a biographical sketch of this lamented physician.